## Recombinant Human PARK7/DJ-1 Protein (His Tag)

## Catalog Number: PKSH030826

Note: Centrifuge before opening to ensure complete recovery of vial contents.

Description	
Species	Human
Source	E.coli-derived Human PARK7/DJ-1 protein Met 1-Asp 189, with an C-terminal His
Calculated MW	21.3 kDa
Observed MW	25 kDa
Accession	Q99497-1
Bio-activity	Not validated for activity
Properties	
Purity	> 95 % as determined by reducing SDS-PAGE.
Endotoxin	Please contact us for more information.
Storage	Generally, lyophilized proteins are stable for up to 12 months when stored at -20 to -80
	°C. Reconstituted protein solution can be stored at 4-8°C for 2-7 days. Aliquots of
	reconstituted samples are stable at $< -20^{\circ}$ C for 3 months.
Shipping	This product is provided as lyophilized powder which is shipped with ice packs.
Formulation	Lyophilized from sterile 20mM Tris, 150mM NaCl, 3mM DTT, 5% glycerol, pH 8.0
	Normally 5% - 8% trehalose, mannitol and 0.01% Tween 80 are added as protectants
	before lyophilization.
	Please refer to the specific buffer information in the printed manual.
Reconstitution	Please refer to the printed manual for detailed information.





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## Background

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Parkinson's disease locus DJ-1 (PARK7) is a differentially expressed transcript. DJ-1 plays a physiologic role in protection of erythroid cells from oxidant damage, a function unmasked in the context of oxidative stress. PARK7 belongs to the peptidase C56 family of proteins. It acts as a positive regulator of androgen receptor-dependent transcription. It may also function as a redox-sensitive chaperone, as a sensor for oxidative stress, and it apparently protects neurons against oxidative stress and cell death. Mutations in the DJ-1 gene are associated with rare forms of autosomal recessive early-onset Parkinson's disease (PD). DJ-1/p53 interactions contribute to apoptosis resistance in clonal myeloid cells and may serve as a prognostic marker in patients with myelodysplastic syndromes (MDS). DJ-1 regulates redox signaling kinase pathways and acts as a transcriptional regulator of antioxidative gene batteries. Therefore, DJ-1 is an important redox-reactive signaling intermediate controlling oxidative stress after ischemia, upon neuroinflammation, and during age-related neurodegenerative processes. Augmenting DJ-1 activity might provide novel approaches to treating chronic neurodegenerative illnesses such as Parkinson's disease and acute damage such as stroke.